ABSTRACT

To shorten a required estimation time while keeping an estimation precision in an object environment given for estimating propagation characteristics with a ray launching

5 method. In the case where a ray is propagated within a given observation area, and collides with a barrier residing on its path, a space in the vicinity of the ray is divided into a plurality of partial spaces until a predetermined condition is satisfied. The space in the vicinity of the ray that is considered to cause

10 a degradation in the estimation precision is divided in reflection until there is less influence of degradation, whereby each of the subdivided partial spaces can be handled individually, so that the estimation precision of radio wave propagation characteristics can be made better than a conventional method.

15 On the other hand, in the case where there is possibly less influence of degradation in the estimation precision, the space is not divided, whereby if a ray is radiated from a transmitting antenna coarsely, the total number of rays is reduced below that of the conventional method, so that a total calculation time

20 taken for a propagation estimation can be shortened.